

Claims

What is claimed is:

1. A method for providing user-friendly Electronic Program Guide (EPG) screens to a subscriber of television or multimedia programming, the method comprising:

monitoring subscriber viewing activities;

collecting raw subscriber selection data based on source material selected by the user over a predetermined period of time;

evaluating the raw subscriber selection data to filter out irrelevant data and generate a record of actual subscriber selection data;

processing the actual subscriber selection data to create a subscriber profile, and

configuring a customized EPG screen based on the subscriber profile, wherein the EPG screen is transmitted to the subscriber.

2. The method of claim 1, wherein the EPG screen includes information about one or more program channels.

3. The method of claim 2, wherein program channels are arranged in an order of preference based on the subscriber profile.

5 4. The method of claim 1, further comprising:
determining one or more channels that may be of interest to the subscriber; and
rearranging the EPG screen to present the channels of interest first.

10 5. The method of claim 1, wherein said monitoring comprises monitoring volume control commands initiated by the subscriber.

15 6. The method of claim 1, wherein said monitoring comprises monitoring channel change commands initiated by the subscriber.

20 7. The method of claim 1, wherein said monitoring comprises monitoring record signals initiated by the subscriber.

8. The method of claim 1, wherein said collecting comprises extracting source related text from the source material.

5 9. The method of claim 8, wherein the source related text includes one or more descriptive fields.

10 10. The method of claim 8, wherein the source related text is extracted from an electronic program guide of the source material.

15 11. The method of claim 8, wherein the source related text is extracted from one or more HTML files related to the source material.

12. The method of claim 8, wherein the source related text is extracted form the close captioning information of the source material.

20 13. The method of claim 1, wherein said collecting further comprises monitoring time durations corresponding to viewing times of selected source material.

14. The method of claim 1, wherein said evaluating comprises evaluating channel change commands and associated viewing times.

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15. The method of claim 14, further comprising filtering out any channel change commands if the associated viewing times are below a pre-determined threshold.

10 16. The method of claim 15, wherein the filtered out channel change commands correspond to channel surfing activities.

15 17. The method of claim 15, wherein the filtered out channel change commands correspond to channel jumping activities.

18. The method of claim 1, wherein said evaluating comprises evaluating viewing times and filtering out any viewing
20 periods if no user activity has been received within a pre-determined period of time.

19. The method of claim 18, wherein the filtered out viewing periods correspond to dead periods implying that the subscriber is not actively watching the television or multimedia programming.

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20. The method of claim 1, wherein said processing comprises generating one or more program characteristics vectors based on the subscriber selection data.

10 21. The method of claim 20, wherein the program characteristics vectors are one or more values characterizing the source material.

15 22. The method of claim 1, wherein said processing corresponds to an n-dimensional program characteristics matrix comprising one or more program characteristics vectors.

20 23. The method of claim 1, wherein said processing further comprises processing subscriber selection data based on a pre-determined set of heuristic rules.

24. The method of claim 23, wherein the heuristic rules are described in logical forms.

25. The method of claim 23, wherein the heuristic rules
5 are expressed as conditional probabilities.

26. The method of claim 1, wherein the subscriber profile is a profile based on the user interests.

27. The method of claim 1, wherein the subscriber belongs
10 to a household and the subscriber profile is a profile based on the interests of the user household.

28. The method of claim 1, wherein the subscriber belongs
15 to a household and the subscriber profile is a demographic profile for the user, the demographic profile indicating the probable age, income, gender, and other demographics.

29. The method of claim 1, wherein the subscriber
20 selection data corresponds to a viewing session and the subscriber profile is a session demographic profile for the user.

30. The method of claim 1, wherein the subscriber
selection data corresponds to a plurality of viewing sessions
and the subscriber profile is an average demographic profile for
5 the subscriber.

31. The method of claim 1, wherein the subscriber profile
is a program preference profile for the subscriber, the program
preference profile indicating the type of programming of
10 interest to the subscriber.

32. The method of claim 1, wherein the subscriber profile
is a product preference profile for the subscriber.

33. The method of claim 1, wherein the subscriber belongs
to a household and the subscriber profile comprises household
demographic data indicating probabilistic measurements of
household demographics.

34. The method of claim 1, wherein the subscriber belongs
to a household and the subscriber profile comprises household

program preference information indicating probabilistic measurements of household program interests.

35. The method of claim 1, wherein the subscriber belongs
5 to a household and the subscriber profile comprises household product preference information indicating probabilistic measurements of household product interests.

36. The method of claim 1, wherein the subscriber
10 selection data corresponds to a viewing session of the subscriber household and the subscriber profile is a session demographic profile for the subscriber household.

37. The method of claim 1, wherein the subscriber
15 selection data corresponds to a plurality of viewing sessions and the subscriber profile is an average demographic profile for the subscriber household.

38. The method of claim 1, wherein the subscriber profile
20 is controlled by the subscriber.

39. The method of claim 1, wherein the subscriber profile is analyzed by a third party for the purposes of marketing and advertising.

5 40. The method of claim 1, wherein access to the subscriber profile is limited to a selected number of other parties.

10 41. The method of claim 1, further comprising analyzing the subscriber profile to estimate user viewing habits.

15 42. A data processing system for generating a customized electronic program guide (EPG) for a subscriber of television programming, the data processing system comprising:

a storage medium;

means for monitoring subscriber activity and creating a record of raw subscriber selection data wherein the raw subscriber selection data corresponds to the source material selected by the subscriber;

20 means for evaluating the raw subscriber selection data and filtering out the selection data associated with irrelevant

activities and for creating a record of an actual subscriber selection data;

means for retrieving source related information wherein the source related information contains descriptive fields

5 corresponding to the actual subscriber selection data;

means for processing the actual subscriber selection data with respect to the descriptive fields to form a subscriber profile; and

means for receiving the subscriber profile and generating a customized EPG screen based on the subscriber profile.

43. The method of claim 42, wherein the EPG screen includes information about one or more program channels.

44. The method of claim 43, wherein program channels are arranged in an order of preference based on the subscriber profile.

45. The system of claim 42, wherein the means for monitoring subscriber activity further comprises means for monitoring time durations wherein the time durations correspond to viewing times of the selected source material.

46. The system of claim 42, wherein the means for monitoring subscriber activity further comprises means for monitoring volume levels wherein the volume levels correspond to subscriber selection volume levels.

47. The system of claim 42, wherein the means for processing includes pre-determined heuristics rules.

48. The system of claim 42, wherein the means for evaluating filters out the selection data associated with channel surfing activities.

49. The system of claim 48, wherein the channel surfing activities are recognized by recognizing the channel change commands issued by the subscriber and then evaluating the associated viewing times.

50. The system of claim 42, wherein the means for evaluating filters out the selection data associated with channel jumping activities.

51. The system of claim 50, wherein the channel jumping activities are recognized by recognizing the channel change commands issued by the subscriber and then evaluating the associated channel numbers and viewing times.

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52. The system of claim 42, wherein the means for evaluating filters out the selection data associated with dead periods.

53. The system of claim 52, wherein the dead periods are recognized by recognizing the channel change commands or volume change commands issued by the subscriber and then evaluating the associated viewing times.

54. The system of claim 42, wherein the subscriber profile contains household demographic data indicating probabilistic measurements of household demographics.

55. The system of claim 42, wherein the subscriber profile contains household program preference information indicating probabilistic measurements of household program interests.

56. The system of claim 42, wherein the subscriber profile contains household product preference information indicating probabilistic measurements of household product interests.

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